CLAIMS

The invention claimed is:

1. One or more computer-readable media having computer-useable instructions embodied thereon for performing a method of identifying switch and trunk-group combinations required to implement a dial plane, the method comprising:

receiving one or more data-destination identifiers;

receiving a Point-of-Presence (POP) Common Language Location Identification (CLLI);

receiving a Termination CLLI;

identifying one or more switch and one or more trunk groups associated with the POP CLLI and the Termination CLLI;

receiving one or more input parameters;

without user input, automatically generating one or more switch-update transactions; and

communicating the one or more switch-update transactions to the one or more switches.

2. The media of claim 1, wherein receiving the one or more data-destination identifiers includes receiving a dialing plan, wherein the dialing plan includes an NPA-NXX code, NPA-NXX-LINE code, or range of NPA-NXX codes.

3. The media of claim 2, wherein the POP CLLI corresponds to a target routing destination.

4. The media of claim 3, wherein the termination CLLI identifies a switch that will communicate data to the POP CLLI.

5. The media of claim 4, wherein identifying one or more switch and one or more trunk groups includes querying a record set that associates a plurality of CLLI routes with a respective plurality of trunk groups.

6. The media of claim 5, wherein receiving one or more input parameters includes receiving one or more of the following:

destination information describing the identified one or more switches;

cost information associated with routing data through the identified one or more trunk groups; and

outpulse-digits data.

7. A method for automatically updating a telecommunications device to route data based on a dialing-plan modification where the telecommunications device terminates to multiple destinations, the method comprising:

receiving a source Common Language Location Identification (CLLI);

receiving a destination CLLI; and

without user intervention,

(1) determining a plurality of pathways between the source CLLI and the destination CLLI; and

(2) identifying one or more switches that need to be updated in order to direct data based on the dialing-plan.

8. The method of claim 7, wherein the source CLLI corresponds to a first network element that directs data to one or more communications components.

9. The method of claim 8, wherein the first network element is a telecommunications switch.

10. The method of claim 9, wherein the destination CLLI corresponds to a second network element that receives data from the first network element, wherein the second network element includes a telecommunications switch, tandem, or end office (EO).

11. The method of claim 10, wherein determining the plurality of pathways includes identifying a plurality of trunks or trunk groups that can communicate data from the source CLLI to the destination CLLI.

12. The method of claim 11, wherein identifying a plurality of trunks or trunk groups includes providing the source CLLI and the destination CLLI as parameters to a database query, wherein the database relates a plurality of source CLLIs and destination CLLIs to a respective plurality of trunks or trunk groups.

13. The method of claim 7, further comprising retrieving one or more input parameters.

14. The method of claim 13, wherein retrieving one or more input parameters includes retrieving a destination-address range, wherein the destination-address range includes one or more NPA-NXX codes.

15. The method of claim 14, further comprising automatically generating one or more switch-update transactions and respectively communicating the one or more switch-update transactions to the one or more identified switches.

16. One or more computer-readable media having computer useable instructions embodied thereon for performing the method of claim 7.

17. A computer-implemented method for updating a telecommunications switch to route data associated with one or more NPA-NXX codes, wherein the switch terminates to one or more destinations, the method comprising:

receiving a source network-element identifier corresponding to a transmitting network element;

receiving a destination network-element identifier corresponding to a receiving network element;

receiving the one or more NPA-NXX codes;

automatically identifying all available communications pathways between the first network element and the second network element upon which data bound for the one of more NPA-NXX codes can be routed;

automatically obtaining profile information associated with the destination network element; and

without use intervention, automatically generating a routing command that, when processed by the transmitting network element, configures the transmitting network element to route data bound for the NPA-NXX codes across the one or more identified communications pathways.

18. The method of claim 17, wherein the transmitting network element and the receiving network element are communications switches.

19. The method of claim 18, wherein the profile information includes vendor-specific information related to the receiving network element.

20. The method of claim 19, wherein the profile information further includes cost information associated with directing data across all or a portion of the identified communications pathways.

21. The method of claim 20, wherein generating the routing command includes generating a switch-update transaction.

22. The method of claim 17, further comprising automatically communicating the routing command to the receiving network element.

23. One or more computer-readable media having computer-useable instructions embodied thereon for performing the method of claim 22.

24. A computer-implemented method for automatically assigning an NPA-NXX range to an end office, the method comprising:

receiving a switch identifier;

receiving a Point of Presence (POP) identifier;

based on the switch identifier and the POP identifier, automatically identifying a plurality of communications pathways associated with the switch identifier and the POP identifier; and

without user intervention, automatically updating a switch associated with the switch identifier to route data bound for the NPA-NXX range through the identified plurality of communications pathways.

25. The method of claim 24, wherein the switch identifier and the POP identifier are respective Common Language Location Identification (CLLI) codes.

26. The method of claim 25, wherein automatically updating the switch comprises:

receiving demographic information related to the switch;

generating one or more tuples based on the demographic information; and

transmitting the one or more tuples to the switch for processing.